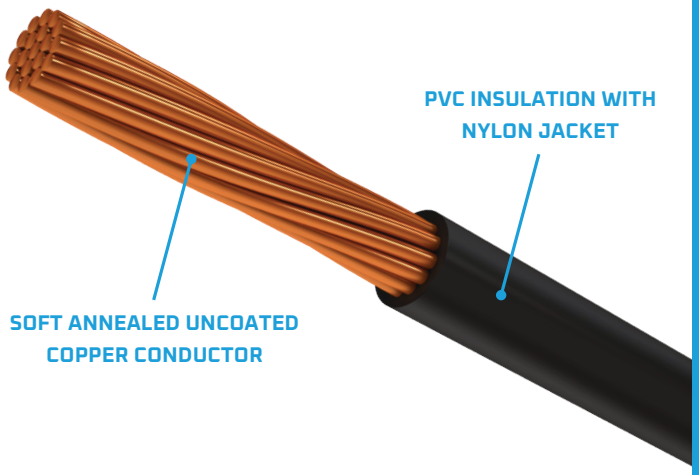
THHN / MTW / THWN-2 / T90 COPPER CONDUCTOR 600V

APPLICATIONS

TYPE THHN/THWN conductors are primarily used in conduit for: services, feeder, and branch circuits in commercial or industrial applications per the National Electrical Code. Please see *Table 1.1* for the temperature ratings of each conductor type. Voltage rating for all applications is 600V.

99.9% Pure Copper | VW-1 Rated | Oil, Grease, Gasoline Res. | Abrasion Resistant



CONSTRUCTION

CONDUCTOR
» Solid, uncoated copper per ASTM B-3.
» Stranded, uncoated copper per ASTM B-3, B-8, & B-787.

INSULATION
» Heat & moisture-resistant, lead-free PVC with flame retardant compound per UL-83 & UL-1063.

JACKETING
» Friction reducing nylon jacket available in standard colors.
» CT rated in sizes 1/0 and larger.
» Sunlight resistant jacketing available in all sizes.
» Sequential footage markings located at each foot.

SPECIFICATIONS

TYPE THHN / THWN / MTW (AWM) conductors meet or exceed all applicable ASTM Specifications; UL-83; UL-1063 (MTW); UL-758 (AWM); Federal Specification A-A-59544; NEMA WC 70/ICEA S-95-685; and the requirements of the National Electric Code® (NFPA 70).

Table 1.1

TYPE	TEMPERATURE RATINGS DRY	WET	OIL
THHN	≤ 90° C	–	–
THWN-2	≤ 90° C	≤ 75° C	≤ 75° C
MTW	≤ 90° C[1]	≤ 60° C	≤ 60° C
AWM	≤ 105° C	–	–

[1] with ampacity limited to that of 75° C conductors per NFPA 79.

Table 1.2

SIZE (AWG OR KCMIL)	STR QTY.	PVC INSULATION THICKNESS (CONDUCTOR) (MM)	(IN)	NYLON JACKET THICKNESS (MM)	(IN)	OUTSIDE DIAMETER (MM)	(IN)	APPROX. NET WEIGHT (KG/MIL)	LBS/1000FT	ALLOWABLE AMPACITY[1] (AMPS) 60° C	75° C	90° C
14*	19	0.38	0.015	0.10	0.004	2.77	0.109	25	16	15	20	25
12*	19	0.38	0.015	0.10	0.004	3.25	0.128	36	23	20	25	30
10*	19	0.51	0.020	0.10	0.004	4.09	0.161	57	38	30	35	40
8	19	0.76	0.030	0.13	0.005	5.41	0.213	94	62	40	50	55
6	19	0.76	0.030	0.13	0.005	6.32	0.249	141	94	55	65	75
4	19	1.02	0.040	0.15	0.006	8.08	0.318	228	153	70	85	95
3	19	1.02	0.040	0.15	0.006	8.79	0.346	281	189	85	100	115
2	19	1.02	0.040	0.15	0.006	9.60	0.378	348	233	95	115	130
1	19	1.27	0.050	0.18	0.007	11.05	0.435	445	298	110	130	145
1/0	19	1.27	0.050	0.18	0.007	12.04	0.474	554	372	125	150	170
2/0	19	1.27	0.050	0.18	0.007	13.16	0.518	687	462	145	175	195
3/0	19	1.27	0.050	0.18	0.007	14.43	0.568	851	572	165	200	225
4/0	19	1.27	0.050	0.18	0.007	15.85	0.624	1059	712	195	230	260
250	37	1.52	0.060	0.20	0.008	17.22	0.678	1266	849	215	255	290
300	37	1.52	0.060	0.20	0.008	18.54	0.730	1503	1010	240	285	320
350	37	1.52	0.060	0.20	0.008	19.74	0.777	1741	1170	260	310	350
400	37	1.52	0.060	0.20	0.008	20.85	0.821	1979	1330	280	335	380
500	37	1.52	0.060	0.20	0.008	22.91	0.902	2455	1650	320	380	430
600	61	1.78	0.070	0.23	0.009	26.70	1.051	3004	2019	350	420	475
750	61	1.78	0.070	0.23	0.009	29.36	1.156	3670	2466	400	475	535
1000	61	1.78	0.070	0.23	0.009	33.27	1.310	4851	3260	455	545	615

*14 AWG; 12 AWG; and 10 AWG also available in solid conductors.

[1] Ampacity of conductors are based on NFPA 70 (NEC)Table 310.15(B)(16). See 110.14(C), 240.4(D), and 310.15(B) for other limitations where applicable.

The data above is approximate and subject to normal manufacturing tolerances.